

CLAIMS:

1. A method for producing hydrophobic silica fine powder, comprising the steps of pyrolyzing a silane compound to form  
5 a silica fine powder and hydrophobizing the silica fine powder with an organohalosilane in a fluidization vessel; wherein hydrophobized silica fine powder which flies out of the fluidization vessel is collected with a cyclone and bag filter held at a temperature of 100 to 500°C.
- 10 2. The method of claim 1 in which the fluidization vessel includes a hydrophobizing section where the silica fine powder is hydrophobized and a deacidifying section where deacidification is carried out following hydrophobization,  
15 and deacidification is carried out in the deacidifying section by adding 0.1 to 1 vol % of water to a fluidizing gas.
3. An apparatus for producing hydrophobic silica fine  
20 powder, comprising:  
a means for pyrolyzing a silane compound to form silica fine powder,  
a means for agglomerating the silica fine powder,  
a first cyclone and a first filter for collecting the  
25 agglomerated silica fine powder,  
a fluidization vessel having a hydrophobizing section for hydrophobizing the collected silica fine powder, and  
a second cyclone and a second filter for collecting  
hydrophobic silica fine powder which flies out of the  
30 fluidization vessel, which second cyclone and second filter can each be held at a temperature of 100 to 500°C.

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